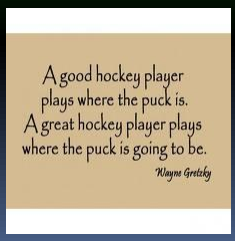
October 27,2013

MICHIGAN MCI BURN PLAN: ASSEMBLING THE TEAM

Why Do we Need a Plan?

- Preparedness goal is 500 burn beds for Michigan. (approx 50 per million population)
- We have 67 licensed burn beds.
- It is better to have a plan in place than create one as the disaster unfolds.



Michigan Burn Bed Capacity

Michigan Burn Centers

- University of Michigan*
- Children's Hospital of Michigan
- Detroit Receiving Hospital*
- Hurley Medical Center
- Bronson
- Spectrum Health

*ABA Verified

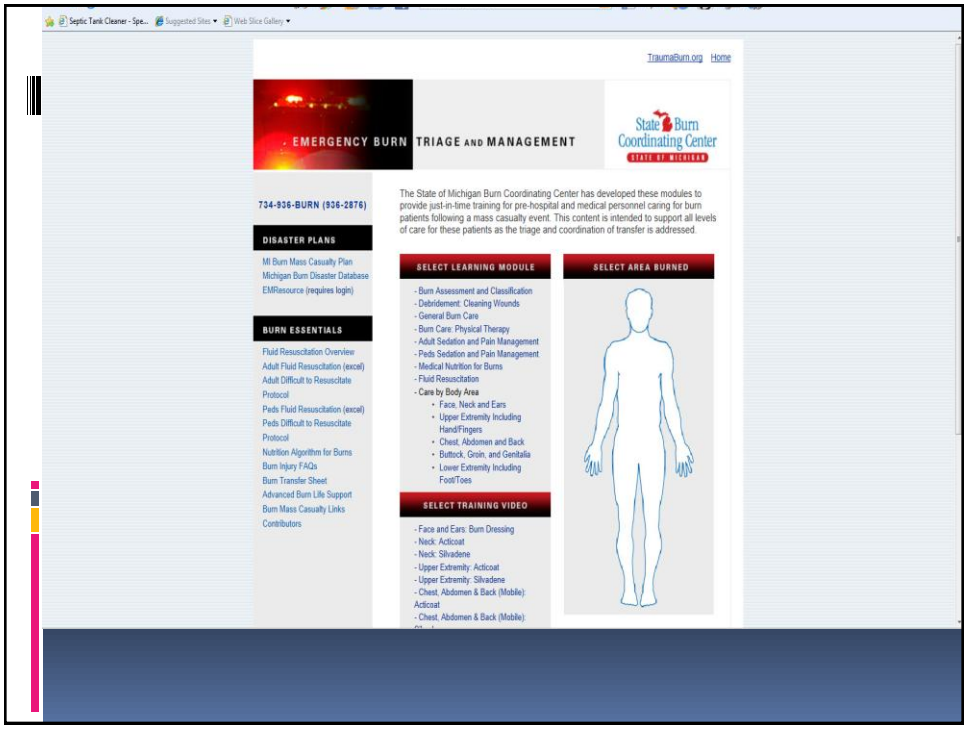
Michigan MCI Burn Plan

- Expands capacity to treat patients
- Organizes limited resources
- Adjusted environments of care
- Provide standardized stabilizing care
- Pre-deploy and coordinate resources
- Use of Burn Surge Facilities (BSF)
- Coordinates Hospitals, MDCH and MSP-HSEMD

Purpose

- Uniform triage of burn patients
- Categorization of hospital resources
- Critical Burn Surge supplies
- Staff and training readiness
- Communication model that actually works
- Bridge the 72 hour Federal gap

www.Michiganburn.org

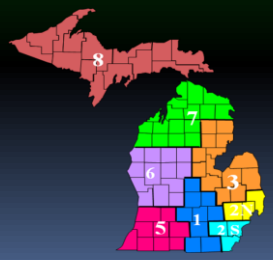


"Burn Stages"

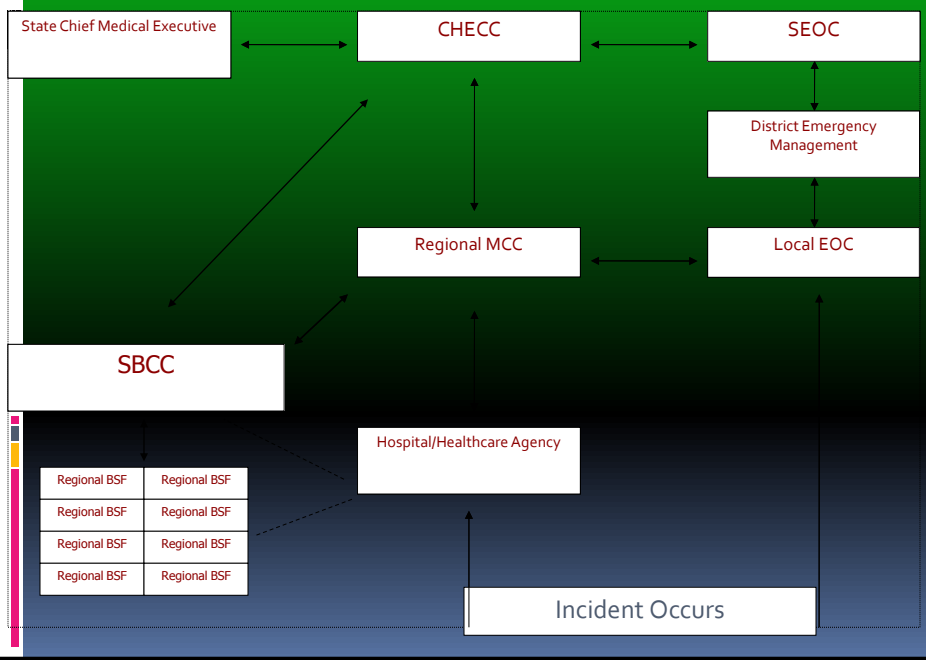
- **Mass Casualty Burn Incident Burn Stages**
  - Stage I (10-24 patients)
    - Any event in which local trauma/burn resources are overwhelmed with patients.
  - Stage II (25-100 patients)
    - Any event in which regional trauma/burn resources are overwhelmed with patients.
  - Stage III (Exceeds 100 patients)
    - Any event in which state trauma/burn resources are overwhelmed with patients.

Operation of the Plan

- Four basic premises must be understood and incorporated into each regions response plan
  - Regional Medical Coordination Centers (MCCs)
  - State Burn Coordination Center (SBCC)
  - Michigan State Burn Centers
  - Regional Burn Surge Facilities



State Burn Surge Communication Pathway



How Can the RMCC Assist?

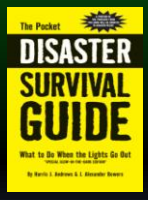
- Field Support and resources. (CTS)
- Notification of all additional players. (Hospitals, MCA's, CHECC and SBCC)

SBCC Role

- How does the SBCC Support an MCI?
  - Coordinate use of burn/ burn surge beds.
  - Determine if out-state resources or BSF's are needed. CHECC conduit to RMCC

SBCC (Help on many levels)

- Who activates the SBCC?
- When does the Burn Surge Plan activate?
  - Who makes the request and decision?
  - When would we do it?
  - Why?



- When do Burn Surge Facilities Activate?

Expanded Focus

- Paramedics for Burn Surge training
- Exercises
- Expanding throughout the Great Lakes

Pediatric Support

- Pediatric Strike Team Support
-

Quick Review (Burn Surge)

- What is the Michigan MCI Burn Surge Plan?
- RMCC
- SBCC
- BSF

MEDDRUN (activations)

Chemical

Pre-deployment Support

K Don Edwards DO FACEP
Region 1 Medical Director

QUESTIONS??

THANK YOU

K DON EDWARDS DO

Save The Date!
Michigan CBRNE Conference

- February 26, 2014
- Novi, Michigan
- Nationally known subject matter experts
- Sponsored by MDCH

Save the Date
Robin Shivley Reception

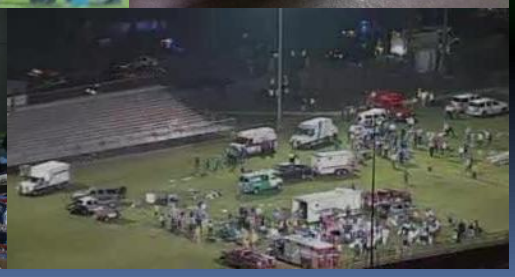
- Monday November 16, 2013
  - 2-4 PM
- Capitol View Bldg Conf Rm A-C (1st floor)

MASS CASUALTY TRANSPORT SYSTEM
A PROPOSED STRATEGY FOR MI

William Fales, MD

Mass Casualty Transport at the Boston Marathon

Mass Casualty Transport in West, Texas

Mass Casualty Transport in West Michigan (Reg 6)



Case 1

"Send me every ambulance you can find"

- A heavily armed, mentally disturbed individual opens fire upon a group of people at city hall
- 20-30 people are shot with injuries ranging from minor to life threatening to fatal
- The shooter is quickly neutralized by police. Casualties are evacuated to an established triage area
- 3 ambulances are on scene within minutes
  - 3 additional ambulances are 30 minutes away
  - 5 additional ambulances are within 60 minutes
- Incident commander requests "every ambulance"

Case 2

"Won't Winter Ever End"

- So much for global warming, Michigan has been experiencing the worst winter in memory
- A late winter storm dumps over 2 feet of heavy snow on top of 2 feet that was already down
- A large LTC facility experiences an extreme snow load on the roof resulting in structural compromise
- A precautionary decision is made to evacuate the facility
- There are 20 ambulatory, 25 wheel chair, and 30 bed bound patients that need to be evacuated

Case 3
"Tornado Trauma"

- Multiple F4 tornadoes strike several contiguous counties
- Dozens of people are killed and hundreds have experienced serious injuries
- One large community hospital is hit by a tornado and must be evacuated
- Other hospitals are overwhelmed; many patients must be transferred to distant trauma centers

Mass Casualty Transport Scenarios

- **Prehospital MCI response**
  - One site vs. multiple sites
  - Time critical emergencies
- **Secondary transport** of patients from community to tertiary care hospitals during an MCI
- **Evacuation** of one or more healthcare facilities
  - Immediate vs. urgent
  - Wide area evacuations

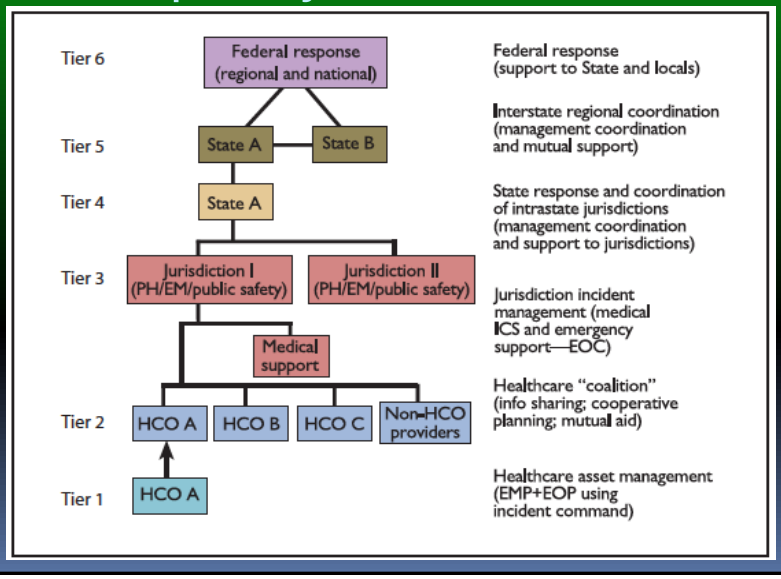
Mass Casualty Transport
Clinical Challenges

- Large number of patients
- Critically ill/injured patients
- Pediatric patients
- Geriatric patients
- Time critical patients (eg, GSWs)
- Patients with varied mobility capabilities
- Patients with special needs (eg, O_2, ventilators)

Mass Casualty Transport
Operational Challenges

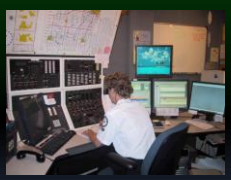
- Inadequate traditional vehicles (ambulances)
- Extreme weather
- Multiple concurrent/competing incidents
- Chaotic scenes
- Interoperable communications
- Effective coordination
- Financial Challenges

Medical Surge Capacity and Capability



Regional Medical Coordination Center

- Multi-Agency Coordination System
- Purpose: Coordinate regional medical resources
- Works collaboratively with local emergency management and MDCH
- Immediately available 24x7
- Other Coordinating Centers
  - Local Emergency Operations Center
  - Hospital Incident Command Center
  - Community Health Emergency Coordination Center (CHECC)
  - State Emergency Operations Center (SEOC)

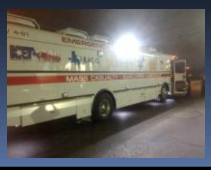


Tier 1
(EMS) Healthcare Organization

- Scope: Local
- Coordinated: Local EMS Dispatch
- CTS Resources
  - Local and primary mutual aid ambulances
  - Alternative surge vehicles
- Examples
  - Multi-car crash with 6 seriously injured patients in rural area
  - 30 high school chemistry students overcome with fumes from a bad experiment, all minor symptoms

Alternative Surge Vehicles

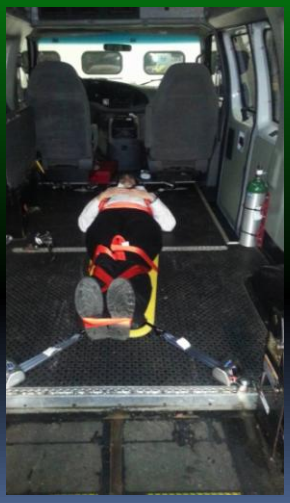
- Specially designed, equipped multi-patient medical transport vehicles dedicated and reserved for casualty transport.
- Pre-identified, equipped wheelchair, paratransit, or public safety vehicles.
- Wheelchair, paratransit, or public safety vehicles that have not been pre-identified or equipped for casualty transport.
- Busses that have been converted for casualty transport of ambulatory and non-ambulatory casualties
- Public and school busses
- Privately owned vehicles



Legal Basis for Alternative Surge Vehicles

- *If an ambulance operation is unable to respond to an emergency patient within a reasonable time, this part **does not prohibit the spontaneous use of a vehicle under exceptional circumstances** to provide, without charge or fee and as a humane service, transportation for the emergency patient. Emergency medical personnel who transport or who make the decision to transport an emergency patient under this section shall file a written report describing the incident with the medical control authority*.
- May need additional legislative or regulatory support.
- Michigan Public Health Code, Act 368 of 1978. MCL 333.20939. *Spontaneous use of vehicle under exceptional circumstances; written report.*

Wheelchair Vans for Surge



Wheelchair Vans as Surge Casualty Resources

Enhancing Wheelchair Van and Paratransit Vehicles to Support Casualty Transport

- Provide simple systems to secure backboards and portable litters to the van
- Add additional Supplies
  - Basic life support equipment
  - Portable oxygen system with masks
  - Disposable blankets
  - Basic PPE (e.g., disposable gloves)
- Vest to identify van drivers as casualty transport personnel
- Basic emergency signaling devices (as allowed by Motor Vehicle Code) to facilitate scene access (e.g., visor LED lights)
- Assure VHF or UHF radios have V-CALL/V-TAC or U-CALL/U-TAC frequencies

Rapid Offload And Return to Scene (ROARS)

- Concept to maximize local ambulances by minimizing ambulance turnaround at local hospital
- Patient handoff done outside of the ED
- Hospitals provide basic resupply of mission critical supplies
- Need to further develop and exercise concept

Tier 2
Regional Healthcare Coalition

- Scope: Regional (pre-local EOC activation)
- Coordinated: Regional Medical Coordination Center
- CTS Resources
  - Regional mutual aid ambulances
    - Tactical Ambulance Strike Team
  - Regional alternative surge vehicles
    - Tactical EMS Task Force
- Examples
  - Large rural MCI with patients needing emergency transfer to tertiary care/trauma centers
  - Fire at large local LTC facility requiring evacuation

Tactical Ambulance Strike Team, Ambulance Task Force and EMS Task Force

- Tactical Resource Group: Rapidly assembled group from readily available resources
  - Need common communications and a team leader
  - Tactical groups rapidly assembled from Area Casualty Transport Coordination Centers
- Tactical Ambulance Strike Team
  - 5 ambulances of similar type (eg, all ALS)
- Tactical Ambulance Task Force
  - 5 ambulances of different types (eg, mix of ALS and BLS)
- Tactical EMS Task Force
  - Any combination of ambulances, other EMS units, or alternative vehicles within proper span of control

Tier 3 - Jurisdictional

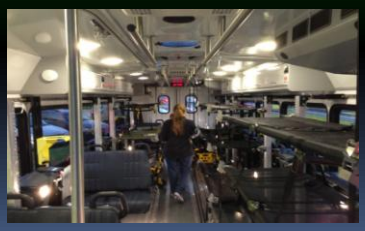
- Scope: Jurisdictional (post-local EOC activation)
- Coordinated: RMCC and Local EOC(s)
- CTS Resources
  - Regional Ambulance Strike Teams/EMS Task Forces
  - Specialty transport vehicles
- Examples
  - Multiple tornadoes have struck 3 counties producing multiple MCIs. Local EOCs coordinate with RMCC to procure additional regional transportation assets
  - One community receives extensive damage and needs expanded EMS coverage for at at least 12-24 hours

Regional Ambulance Strike Team / EMS Task Force

- Pre-identified EMS agencies and personnel from throughout the region
- Personnel receive specialized disaster response training (e.g., BDLS/ADLS)
- Capable of operating independently for 72 hours
  - 6 hour call up time
- Strike Team = 5 ambulances of same type (eg ALS)
  - EMS Task Force = Mixed EMS resources
- Team leader, common communications, specific mission objectives

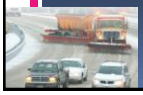
Specialty Casualty Transport Resources



Tier 4 - State and Interregional

- Scope: State and Interregional
- CTS Resources: RAST/TFs, State and National Guard assets
- Coordination: RMCCs, CHECC, SEOC
- Examples:
  - A region receives extensive damage from tornadoes with many communities heavily damaged. T-AST/TFs and R-AST/TFs from other regions mobilized
  - A major snowstorm makes transportation in the region extremely difficult. MDOT provides snowplow escorts for ambulances. MI-NG provides 4WD ambulances and other alternate vehicles.


Tier 5 - Interstate

- Scope: Interstate (provided through EMAC)
- CTS Resources: AST/TFs, National Guard
- Coordination: RMCCs, CHECC, SEOC, EMAC
- Example
  - A major winter storm has paralyzed all of Michigan. States to the south and east have been spared. Every region is in need of additional ambulances. An EMAC request is made for an AST for each region to augment EMS operations.

Tier 6 - Federal

- Scope: Federal
- CTS Resources
  - FEMA National Ambulance Contract
  - National Disaster Medical System (NDMS)
- Coordination: CHECC, SEOC, DHS, HHS
- Example
  - An improvised nuclear device has been detonated at a major sporting event producing thousands of casualties that far exceed the capabilities of MI hospitals. Both the FEMA National Ambulance Contract and NDMS are activated

FEMA National Ambulance Contract

- Contract with AMR Ambulance
- 4 FEMA Zones
  - 300 ground ambulances
  - 25 air ambulances
  - Paratransit for 3,500
- National Capability
  - 1200 ambulances
  - 100 air ambulances
  - Paratransit for 14,000

National Disaster Medical System

- Disaster Medical Assistance Teams
- Military Casualty Transport System

Air EMS

- Important resource
- Plan for multiple aircraft at one site (hospital)
- First in aircraft as ground control
- Potential CTS Groups
  - Air Ambulance Strike Team
  - Air EMS Task Force
    - Licensed and non-licensed medical aircraft

Summary

- Casualty Transport System is essential component of disaster planning and response
- Multi-tiered approach needed
  - Expandable and contractible as incident changes
- Numerous challenges need to be addressed
- Further planning, training and exercising at all levels
- Next steps???

Questions and Thoughts

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